

CLAIMS

1. A structural element for the realisation of three-dimensional constructions, characterised in that  
5 it consists of a generally planar tripod-shaped body (1, 2; 15), with three equidistant arms (1a, 2a; 15a) whose free ends (1c, 2c; 15c) are adapted to be deviated angularly at a same side relative to the general plane of the tripod body (1, 2; 15) to achieve  
10 there union with the free ends of the arms of similar tripod bodies in such a way as to form an approximately spherical grid structure (5).

2. Structural element as claimed in claim 1, characterised in that said approximately spherical grid  
15 structure (5) is generated by the union of eight of said structural elements (1, 2; 15).

3. Structural element as claimed in claim 1 or claim 2, characterised in that for said angular deviation said free ends (1c, 2c; 15c) of the arms (1a,  
20 1b; 15a) are elastically deformable.

4. Structural element as claimed in claim 1 or claim 2, characterised in that for said angular deviation said free ends (1c, 2c) are articulated in hinge fashion (1d, 2d) to said arms (1a, 2a).  
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5. Structural element as claimed in claim 3 or claim 4, characterised in that each of said free ends (1c, 2c) is connected to the respective arm (1a, 2a) through a narrowed section (1d, 2d).

6. Structural element as claimed in claim 5,  
30 characterised in that said narrowed section consists of a flexible hinge (1d, 2d).

7. Structural element as claimed in any of the previous claims, characterised in that said free ends (1c, 2c) of said three arms (1a, 2a) of the tripod body  
35 have formation for mutual rapid coupling (3, 4) with

the free ends of the arms of similar tripod bodies.

8. Structural element as claimed in claim 7, characterised in that said mutual coupling formations (3, 4) are of the set-in type.

5 9. Structural element as claimed in claim 7, characterised in that said mutual coupling formations (3, 4) are of the snap-in type.

10 10. Structural element as claimed in claim 8 or claim 9, characterised in that said mutual coupling formations include male and female engagement members (3, 4).

11. Structural element as claimed in claim 10, characterised in that said male engagement members include a pair of contiguous hook-like projections (3) and said female engagement members include an opening (4) which can be engaged by said hook-like projections (3).

12. Structural element as claimed in one or more of the previous claims, characterised in that said tripod-shaped body has a slightly convex configuration.

13. Structural element as claimed in one or more of the previous claims, characterised in that it is made of a moulded thermoplastic or thermosetting material, or of an elastomeric material, or of a high strength composite material, or of a metallic material.

14. Grid structure (5) characterised in that it comprises eight tripod structural elements (1, 2) as claimed in one or more of the previous claims, the free ends (1c, 2c) of whose arms (1a, 2a) are deviated angularly and are mutually joined in such a way as to define a body of approximately spherical shape with twelve nodal points defined by the union of said free ends (1c, 2c).

15. Grid structure as claimed in claim 13, characterised in that it further comprises mutual

junction elements (9) for the union of said grid structure (5) with identical grid structures (5) to obtain complex three-dimensional constructions.

16. A three-dimensional construction game  
5 comprising a plurality of structural elements as claimed in one or more of the claims 1 through 12, for the construction of grid structures as claimed in claim 13 or claim 14.